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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,036	10/21/2003	Hiroshi Teramoto	086142-0569	2968

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EXAMINER

BROWN, DREW J

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/689,036	Applicant(s) TERAMOTO ET AL.	
	Examiner Drew J. Brown	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/21/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 9-14, 16, 17, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dinsdale et al. (U.S. Pat. No. 6,820,898 B2).

With respect to claim 1, 9, and 10, Dinsdale et al. discloses an airbag positioned to inflate along an interior side of a vehicle (Figure 1). A tube, or elongated pipe, containing an inert (column 14, line 1) pressurized gas (column 15, lines 21-24) is configured to extend along the side of the vehicle in the longitudinal direction of the vehicle. There are a plurality of spaced apart openings (170, 172) along the length of the tube positioned to allow the pressurized gas to enter and inflate the airbag, and a plurality of inflation devices (100a, 100b) are connected to the tube at opposite ends, wherein each inflation device produces an exhaust gas for further pressurizing the pressurized gas. The openings are also sealed until the inert gas reaches a predetermined pressure.

With respect to claims 2, 6, and 11, each opening is covered by a frangible seal (178a, 178b) configured to break when the pressurized gas reaches a predetermined pressure and thereby releases the gas into the airbag. The openings are positioned to face in generally

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opposite directions so that gas exiting the tube and entering the airbag through the openings enters the airbag in generally opposing directions (Figure 3).

With respect to claims 3-5, 16, and 17, each of the inflation devices is located in an end of the tube (Figure 3), includes an igniter (104), and includes a cap containing a booster propellant (column 15, lines 46-49).

With respect to claims 12-14, the inflator further comprises a gas inlet (88) for charging the inert gas into the pipe. The gas inlet is sealed (89) by a ball weld (column 14, lines 40-46).

With respect to claim 20, Dinsdale et al. discloses an airbag positioned to inflate along an interior side of a vehicle, where a pip has a sealed opening (178e, 178f) at each end and extends in the longitudinal direction of the vehicle along the upper part of the airbag and is configured to conform to the shape of the upper part of the airbag, wherein the pip is filled with pressurized gas.

A plurality of gas outflow openings in the pipe are positioned along the length of the pipe to allow the pressurized gas to enter and inflate the airbag, wherein the gas outflow openings are sealed until the pressurized gas reaches a predetermined pressure.

Dinsdale also discloses a pair of inflation devices that are connected to the tube, wherein each inflation device includes an initiator and a booster propellant for producing an exhaust gas for further pressurizing the pressurized gas, wherein each inflation device is positioned in one of the sealed openings located at both ends of the pipe (Figure 3) so that the initiator can receive a triggering signal from a control device when the occurrence of a vehicle collision is detected by a sensor (column 7, lines 3-8).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinsdale et al. (U.S. Pat. No. 6,820,898 B2).

With respect to claim 8, Dinsdale et al. discloses the claimed invention as discussed above but does not disclose that the length of the tube corresponds generally to the distance between A and C pillars of the vehicle. Dinsdale et al. does, however, disclose that the inflatable curtains may be extended to have more protection zones positioned to protect occupants of extra seats. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Dinsdale et al. to extend the tube to cover the distance A and C pillars of the vehicle so additional airbags are not needed to provide the same degree of protection to the occupants.

With respect to claims 18 and 19, Dinsdale et al. also does not disclose that a caulking material seals the ends of the pipe. However, it is conventional in the art to use a caulking material to create a watertight or airtight seal. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Dinsdale et al. to seal the ends of the pipe with a caulking material so the pressures of each side of the airbag near the corresponding igniters are the same so the airbag inflates uniformly.

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5. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinsdale et al. (U.S. Pat. No. 6,820,898 B2) in view of Stevens et al. (U.S. Pat. No. 6,296,274 B1).

Dinsdale et al. discloses the claimed invention as discussed above but does not disclose that the tube is curved along its length. However, Stevens et al. does disclose that the tube is curved along its length. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Dinsdale et al. in view of the teachings of Stevens et al. to curve the tube in order to conform to the shape of the vehicle. This allows the airbag to take up the least amount of space in the vehicle as possible by allowing it to run along the roof rail of the vehicle.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Young et al. (U.S. Pat. No. 6,851,705 B2), Rink et al. (U.S. Pat. No. 6,746,046 B2), and O'Loughlin et al. (U.S. Pat. No. 5,794,973) disclose similar airbags.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..

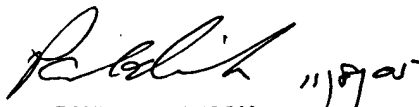
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown
Examiner
Art Unit 3616

DJB


PAUL N. DICKSON
SUPERVISOR PATENT EXAMINER
TECHNOLOGY CENTER 3600